

# PATENT COOPERATION TREATY

From the  
INTERNATIONAL PRELIMINARY EXAMINING AUTHORITY

To: MICHAEL GLENN  
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**PCT**

**NOTIFICATION OF TRANSMITTAL OF  
INTERNATIONAL PRELIMINARY  
EXAMINATION REPORT**

(PCT Rule 71.1)

Date of Mailing  
(day/month/year)

Applicant's or agent's file reference

**IMPORTANT NOTIFICATION**

TIV00064P

International filing date (day/month/year)

Priority Date (day/month/year)

PCT/US00/34819

21 DECEMBER 1999

Applicant

TIVO, INC.

1. The applicant is hereby notified that the International Preliminary Examining Authority transmits herewith a copy of the report and its annexes, if any, established on the international application.
2. A copy of the report and its annexes, if any, is being transmitted to the International Bureau for communication to all the elected Offices.
3. Where required by any of the elected Offices, the International Bureau will prepare an English translation of the report (but not of any annexes) and will transmit such translation to those Offices.
4. REMINDER

The applicant must enter the national phase before each elected Office by performing certain acts (filing translations and paying national fees) within 30 months from the priority date (or later in some Offices)(Article 39(1))(see also the reminder sent by the International Bureau with Form PCT/IB/301).

Where a translation of the international application must be furnished to an elected Office, that translation must contain a translation of any annexes to the international preliminary examination report. It is the applicant's responsibility to prepare and furnish such translation directly to each elected Office concerned.

For further details on the applicable time limits and requirements of the elected Offices, see Volume II of the PCT Applicant's Guide.

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**02 APR 2002**

Applicant's or agent's file reference  
**TIVO00064P**

### IMPORTANT NOTIFICATION

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**PCT/US00/34819**

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**21 DECEMBER 1999**

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Form PCT/IPEA/416 (July 1992)★

**DOCKETED**

By: \_\_\_\_\_  
Date: 4/12/02

## PATENT COOPERATION TREATY

## PCT

## INTERNATIONAL PRELIMINARY EXAMINATION REPORT

(PCT Article 36 and Rule 70)

Applicant's or agent's file reference TIVO00064P	<b>FOR FURTHER ACTION</b>	See Notification of Transmittal of International Preliminary Examination Report (Form PCT/IPEA/416)
International application No. PCT/US00/34819	International filing date (day/month/year) DECEMBER 2000	Priority date (day/month/year) 21 DECEMBER 1999
International Patent Classification (IPC) or national classification and IPC Please See Supplemental Sheet.		
Applicant TIVO, INC.		

1. This international preliminary examination report has been prepared by this International Preliminary Examining Authority and is transmitted to the applicant according to Article 36.
2. This REPORT consists of a total of 5 sheets.
- This report is also accompanied by ANNEXES, i.e., sheets of the description, claims and/or drawings which have been amended and are the basis for this report and/or sheets containing rectifications made before this Authority. (see Rule 70.16 and Section 607 of the Administrative Instructions under the PCT).
- These annexes consist of a total of 4 sheets.
3. This report contains indications relating to the following items:
- I  Basis of the report
  - II  Priority
  - III  Non-establishment of report with regard to novelty, inventive step or industrial applicability
  - IV  Lack of unity of invention
  - V  Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement
  - VI  Certain documents cited
  - VII  Certain defects in the international application
  - VIII  Certain observations on the international application

Date of submission of the demand  17 JULY 2001	Date of completion of this report  20 FEBRUARY 2002
Name and mailing address of the IPEA/US Commissioner of Patents and Trademarks Box PCT Washington, D.C. 20231  Facsimile No. (703) 305-9230	Authorized officer  VINCENT F. BOCCIO  Telephone No. (703) 305-4700

## INTERNATIONAL PRELIMINARY EXAMINATION REPORT

International application No.

PCT/US00/34819

**I. Basis of the report**

## 1. With regard to the elements of the international application:\*

 the international application as originally filed the description:

pages \_\_\_\_\_ (See Attached) \_\_\_\_\_, as originally filed  
 pages \_\_\_\_\_, filed with the demand  
 pages \_\_\_\_\_, filed with the letter of \_\_\_\_\_

 the claims:

pages \_\_\_\_\_ (See Attached) \_\_\_\_\_, as originally filed  
 pages \_\_\_\_\_, as amended (together with any statement) under Article 19  
 pages \_\_\_\_\_, filed with the demand  
 pages \_\_\_\_\_, filed with the letter of \_\_\_\_\_

 the drawings:

pages \_\_\_\_\_ (See Attached) \_\_\_\_\_, as originally filed  
 pages \_\_\_\_\_, filed with the demand  
 pages \_\_\_\_\_, filed with the letter of \_\_\_\_\_

 the sequence listing part of the description:

pages \_\_\_\_\_ (See Attached) \_\_\_\_\_, as originally filed  
 pages \_\_\_\_\_, filed with the demand  
 pages \_\_\_\_\_, filed with the letter of \_\_\_\_\_

2. With regard to the language, all the elements marked above were available or furnished to this Authority in the language in which the international application was filed, unless otherwise indicated under this item.  
These elements were available or furnished to this Authority in the following language \_\_\_\_\_ which is

- the language of a translation furnished for the purposes of international search (under Rule 23.1(b)).
- the language of publication of the international application (under Rule 48.3(b)).
- the language of the translation furnished for the purposes of international preliminary examination (under Rules 55.2 and/or 55.3).

## 3. With regard to any nucleotide and/or amino acid sequence disclosed in the international application, the international preliminary examination was carried out on the basis of the sequence listing:

- contained in the international application in printed form.
- filed together with the international application in computer readable form.
- furnished subsequently to this Authority in written form.
- furnished subsequently to this Authority in computer readable form.
- The statement that the subsequently furnished written sequence listing does not go beyond the disclosure in the international application as filed has been furnished.
- The statement that the information recorded in computer readable form is identical to the written sequence listing has been furnished.

4.  The amendments have resulted in the cancellation of:

- the description, pages \_\_\_\_\_ NONE
- the claims, Nos. \_\_\_\_\_ NONE
- the drawings, sheets/fig. \_\_\_\_\_ NONE

5.  This report has been drawn as if (some of) the amendments had not been made, since they have been considered to go beyond the disclosure as filed, as indicated in the Supplemental Box (Rule 70.2(c)).\*\*

\* Replacement sheets which have been furnished to the receiving Office in response to an invitation under Article 14 are referred to in this report as "originally filed" and are not annexed to this report since they do not contain amendments (Rules 70.11 and 70.17).

\*\*Any replacement sheet containing such amendments must be referred to under item 1 and annexed to this report.

## INTERNATIONAL PRELIMINARY EXAMINATION REPORT

International application No.

PCT/US00/34819

**V. Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement****1. statement**

Novelty (N)	Claims	<u>1-16</u>	YES
	Claims	<u>NONE</u>	NO
Inventive Step (IS)	Claims	<u>5-16</u>	YES
	Claims	<u>1-4</u>	NO
Industrial Applicability (IA)	Claims	<u>1-16</u>	YES
	Claims	<u>NONE</u>	NO

**2. citations and explanations (Rule 70.7)**

Claims 1-4 lack an inventive step under PCT Article 33(3) as being obvious over Llenas et al.(5,271,626).

Regarding claims 1-4, Llenas discloses a process of enhancing the viewership of TV advertisements comprising the steps of: partitioning the points of commercials(Figs. 2 a, 2 b, 3, 4 a, 4 b, 5 a, 5 b, 6, 7) with respect to programs, having a predetermined length of time{detected the start and end of commercial segments or duration, black space sensing}, wherein the beginning and ending points(black space) are authored to provide a teaser in the form of a image or logo, manu or animation(Fig. 4 a, cols. 2-8) to entice the viewer to watch multiple commercials during the commercial break(col. 1-4), wherein the beginning and end parts of the teaser inserted into commercial segments may not be the same(teasers, first a mascot for example and thereafter a menu of clues, Fig. 4 a).

Llenas discloses storage of commercials(Fig. 1, 18) and teaser information(Fig. 4 b), but, fails to disclose the information in digital form.

It would have been obvious to one skilled in the art, to provide the recorded teasers and commercials in digital form which lends the information to be compression and to provide error correction coding to the information as is well known to those skilled in the art.

Claims 5, 8 and 11 lack novelty under PCT Article 33(2) as being anticipated by Logan et al.(5,892,586).

Regarding claims 5, 8 and 11, Logan discloses a process, apparatus and method of enhancing viewership of TV advertisements in a digital environment(Abstract, "tailored to the preferences of an individual"), comprising the steps of: providing a storage device(Figs. 1-3, "18"), recording TV and advertisements onto the storage, and selecting an advertizerment and playing back the TV program and advertizerment before or after TV program material(commercial periods) to the viewer.

Claims 5-7, 8-10 and 11-13 meet the criteria set out in PCT Article 33(2)-(4), because the prior art does not teach or fairly suggest the combination of enhancing viewership of TV (Continued on Supplemental Sheet.)

## INTERNATIONAL PRELIMINARY EXAMINATION REPORT

International application No.

PCT/US00/34819

**Supplemental Box**

(To be used when the space in any of the preceding boxes is not sufficient)

Continuation of: Boxes I - VIII

Sheet 10

**CLASSIFICATION:**

The International Patent Classification (IPC) and/or the National classification are as listed below:  
IPC(7): HO4N 7/08, 7/084, 7/087, 5/91, 7/00, 7/10, 7/025 and US Cl.: 348/473; 386/46; 725/32, 34, 35, 36

**I. BASIS OF REPORT:**

This report has been drawn on the basis of the description,  
page(s) 1-9, as originally filed.

page(s) NONE, filed with the demand.  
and additional amendments:

NONE

This report has been drawn on the basis of the claims,  
page(s) NONE, as originally filed.

page(s) NONE, as amended under Article 19.

page(s) NONE, filed with the demand.  
and additional amendments:

Pages 10-15, filed with the letter of 21 December 2001

This report has been drawn on the basis of the drawings,  
page(s) 1-9, as originally filed.

page(s) NONE, filed with the demand.  
and additional amendments:

NONE

This report has been drawn on the basis of the sequence listing part of the description:

page(s) NONE, as originally filed.

page(s) NONE, filed with the demand.

and additional amendments:

NONE

**V. 2. REASoNED STATEMENTS - CITATIONS AND EXPLANATIONS (Continued):**

advertisements by inserting teasers by partitioning the beginning and ending points of commercials, carefully authoring by adding teasers to entice the viewer to watch multiple commercials, wherein the teasers are associated with viewer's viewing preferences and/or personal data.

In addition, claims 7, 10 and 13-16, the prior art fails to disclose in the selecting step selects the advertisement to be displayed after the program material is played back to a viewer that is different than the advertisement data before the TV program materials is played back to the viewer.

Furthermore, as argued Logan fails to anticipate claims 7, 10 and 13-16.

Claims 1-16 meet the criteria set out in PCT Article 33(4), because the invention/subject matter can be made and/or used in industry.

In response to arguments provided on 21 Dec. 2001.

In re pages 2-3, applicant states, "Llenas does not teach or disclose commercial segment partitioning for the beginning and end points and further teaches away from using commercial segments due to using the black space between commercials and program segments.

In response the examiner fails to agree. Partitioning is accomplished by detecting black spaces (abstract, etc.), known as the inserted black frames between commercials and program material, which have a previously specified duration, as is well known to those skilled in the art.

Furthermore, Llenas et al. does not teach away in view of describing that the black spaces or frames are part of the commercial segment (col. 3, lines 7-10, the black spaces are part of the commercial segment).

In addition col. 2, lines 34-44, describe when interrupted for a commercial break a mascot or animal will appear and give a clue or hint, therefore a teaser is during a commercial.

INTERNATIONAL PRELIMINARY EXAMINATION REPORT

International application No.

PCT/US00/34819

Supplemental Box

(To be used when the space in any of the preceding boxes is not sufficient)

Continuation of: Boxes I - VIII.

Sheet 11

----- NEW CITATIONS -----

- US 5,892,536 A (LOGAN et al.) 06 April 1999, Figs. 1-3  
US 5,600,364 A (HENDRICKS et al.) 04 February 1997, Abstract  
US 5,271,626 A (LLENAS et al.) 21 December 1993, Fig. 4, cols. 2-8

1. A process for enhancing the viewership of television advertisements in a digital video recorder (DVR) environment, comprising the steps of:
  - 5 partitioning the beginning and end of each commercial break in a program segment;
    - wherein each partition is of a predetermined length of time; and
    - wherein said beginning and end partitions are carefully authored to provide a teaser to entice the viewer to watch multiple commercials during the
  - 10 break.
2. The process of claim 1, wherein said teaser is a set of images or logos that indicate a commercial relating to a particular advertiser is present.
- 15 3. The process of claim 1, wherein said teaser is a menu or short sequence of animations designed to catch the viewer's attention and persuade him to watch the commercial break.
4. A process for enhancing the viewership of television advertisements in a digital video recorder (DVR) environment, comprising the steps of:
  - 20 partitioning the beginning and end of a television advertisement;
  - wherein each partition is of a predetermined length of time; and
  - wherein said beginning partition and said end partition contain the more important content designed to get the desired message across to the
  - 25 viewer in the predetermined length of time.

IPEAUS 21 DEC 2001

5. A process for enhancing the viewership of television advertisements in a digital video recorder (DVR) environment, comprising the steps of:

providing a storage device;

recording television program material onto said storage device;

5 receiving advertisements from an external source;

storing said advertisements on said storage device;

selecting an advertisement from said storage device;

playing back said television program material from said storage device

to the viewer; and

10 wherein said playing back step displays said advertisement to the viewer before and/or after said television program material is played back to the viewer.

6. The process of claim 5, wherein said selecting step selects said 15 advertisement based on the viewer's viewing preferences and/or personal data.

7. The process of claim 5, wherein said selecting step selects an 20 advertisement to be displayed after said television program material is played back to the viewer that is different than the advertisement displayed before said television program material is played back to the viewer.

8. An apparatus for enhancing the viewership of television advertisements in a digital video recorder (DVR) environment, comprising:

25 a storage device;

a module for recording television program material onto said storage device;

a module for receiving advertisements from an external source;

a module for storing said advertisements on said storage device;

5 a module for selecting an advertisement from said storage device;

a module for playing back said television program material from said storage device to the viewer; and

wherein said playing back step displays said advertisement to the viewer before and/or after said television program material is played back to

10 the viewer.

9. The process of claim 8, wherein said selecting module selects said advertisement based on the viewer's viewing preferences and/or personal data.

15

10. The process of claim 8, wherein said selecting module selects an advertisement to be displayed after said television program material is played back to the viewer that is different than the advertisement displayed before said television program material is played back to the viewer.

20

11. A program storage medium readable by a computer, tangibly embodying a program of instructions executable by the computer to perform method steps for enhancing the viewership of television advertisements in a digital video recorder (DVR) environment, comprising the steps of:

25 providing a storage device;

recording television program material onto said storage device;

receiving advertisements from an external source;  
storing said advertisements on said storage device;  
selecting an advertisement from said storage device;  
playing back said television program material from said storage device

5 to the viewer; and

wherein said playing back step displays said advertisement to the viewer before and/or after said television program material is played back to the viewer.

10 12. The method of claim 11, wherein said selecting step selects said advertisement based on the viewer's viewing preferences and/or personal data.

15 13. The method of claim 11, wherein said selecting step selects an advertisement to be displayed after said television program material is played back to the viewer that is different than the advertisement displayed before said television program material is played back to the viewer.

20 14. A process for enhancing the viewership of television advertisements in a digital video recorder (DVR) environment, comprising the steps of:

determining the beginning of a commercial break in a television program material;

inserting an informational tag at the beginning of said commercial break;

25 providing a storage device;

recording said television program material onto said storage device;

playing back said television program material from said storage device to a viewer;

wherein said playing back step recognizes said informational tag and pauses the playback of the program material;

5        wherein said informational tag tells said playing step the sequence of commercials in the commercial break;

      wherein said playing back step displays a menu of the available commercials in said commercial break to the viewer; and

10      wherein said playing back step allows the viewer to select any of the commercials listed in said menu and plays the selected commercial.

15.     The process of claim 14, wherein when the viewer is finished viewing the commercials listed in said menu or has skipped through said menu, said playing back step continues playback of the program material.

15

16.     A process for enhancing the viewership of television advertisements in a digital video recorder (DVR) environment, comprising the steps of:

      determining the beginning of each commercial in a commercial break in a television program material;

20        inserting an informational tag at the beginning of each commercial in said commercial break;

      providing a storage device;

      recording said television program material onto said storage device;

      playing back said television program material from said storage device

25        to a viewer;

- wherein said playing back step recognizes an informational tag and pauses the playback of the program material;
- wherein an informational tag contains a teaser image or multi-frame video sequence associated with the following commercial;
- 5       wherein said playing back step displays said teaser image or multi-frame video sequence to the viewer and pauses playback; and
- wherein said playing back step allows the viewer to watch the entire associated commercial or to skip to the next informational tag.
- 10      17. The process of claim 16, wherein when the viewer has viewed or skipped to the end of the commercial break, said playing back step continues playback of the program material.